PATENT COOPERATION TREATY

From the:
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

FARMER, G.
GLAVERBEL
Department of Intellectual Property
Centre R.& D.
Rue de l'Aurora, 2
B-6040 Jumet
BELGIQUE

PROPRIETE
30 -03- 2001
...RIELLE

L> GF
SLV
L> DD

PCT

WRITTEN OPINION

(PCT Rule 66)

LO 28.06.2001

Date of mailing *(day/month/year)*	28.03.2001
REPLY DUE	**within 3 month(s)** from the above date of mailing

Applicant's or agent's file reference	International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
WO 4223 PCT - VerTiStrip	PCT/EP00/04199	01/05/2000	20/05/1999

International Patent Classification (IPC) or both national classification and IPC

H05B3/86

Applicant

GLAVERBEL

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

I	☒	Basis of the opinion
II	☐	Priority
III	☐	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	☐	Lack of unity of invention
V	☒	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	☐	Certain document cited
VII	☒	Certain defects in the international application
VIII	☒	Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 20/09/2001.

Name and mailing address of the international preliminary examining authority:
European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized officer / Examiner
Gols, J

Formalities officer (incl. extension of time limits)
Magliano, D
Telephone No. +49 89 2399 2245

WRITTEN OPINION International application No. PCT/EP00/04199

I. **Basis of the opinion**

1. This opinion has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".*):

Description, pages:

1-5 as originally filed

Claims, No.:

1-10 as originally filed

Drawings, sheets:

1/2-2/2 as originally filed

2. With regard to the **language,** all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrialapplicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	
Inventive step (IS)	Claims	1-10 (NO)
Industrial applicability (IA)	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

WRITTEN OPINION
SEPARATE SHEET

International application No. PCT/EP00/04199

V

1. Reference is made to the following documents:

   D1: US-A-5 898 407

2. Claim 1:

   D1 discloses an automotive glazing panel having an electrically heatable solar control coating layer (7), spaced first and second bus bars (15) adapted to relay electrical power to the coating layer and a window (8), in which the window is positioned adjacent the top edge of the glazing unit, the first bus bar is positioned adjacent a first edge of the glazing panel and the second bus bar is positioned adjacent a second edge of the glazing panel (see column 7, line 8 - column 9, line 33).

   The subject-matter of claim 1 differs from what has been disclosed in D1 in that the window is a data transmission window.

   This feature relates to the problem of allowing data to be transmitted through a limited area in the glazing panel.

   There is no reason why the window (8) as disclosed in D1 could not be used as a window permitting the transmission of (electromagnetic) data therethrough. The window as disclosed even has dimensions which fall in the range as mentioned in the description of the present application. Consequently the skilled person would have no problem (In fact it is straightforward) to use the window as disclosed in D1 for solving the above-mentioned problem. There exist no special technical difficulties to use the disclosed window as a data transmission window and even if such difficulties would exist, claim 1 does not define any technical features relating to such difficulties.

3. Claim 2:

   The only difference between claim 1 and claim 2 is that the data transmission

window is positioned adjacent a bottom edge of the glazing panel. The selection of such a position is merely guided by circumstances and (see also the reasoning under point 2 above) does not involve an inventive step.

4. Claims 3 and 4:

The subject-matter of this claim is obvious in view of D1 (see the reasoning under points 2 and 3 above). The feature of claim 4 is known from D1.

5. Claims 5 and 6:

The subject-matter of these claim relates to the data transmission window being partially or substantially surrounded by the coating layer. The underlying problem provided by the subject-matter of claim 5 and 6 is that the heatable solar control coating layer should cover the glazing panel over an area as large as possible. Obviously the coating should not be there where the window is situated. Consequently, the subject-matter of claims 5 and 6 is regarded as a trivial measure.

6. Claim 7:

The subject-matter of claim 7 consists in the selection of a minimum distance (at least 300 mm) between the data transmission window and one of the bus bars. Such a selection is not regarded as inventive since it does not presents unexpected effects or properties and the selection is merely chosen in accordance with the circumstances. Hence, no inventive step is present in the subject-matter of claim 7.

7. Claim 8:

The subject-matter of claim 8 defines the glazing panel as defined in claim 1 or claim 2 in more detail. Most of these details relate to features already disclosed in D1. No inventive step, e.g. can be seen in features specifying that the panel has edges or features relating to the length and running of the busbars relative to the edges.

Furthermore no inventive step can be attributed to the feature that the data transmission window is adapted to permit electromagnetic data transmission therethrough, in which the data transmission window permits transmission of a greater proportion of incident electromagnetic data than the proportion of incident electromagnetic data transmitted by an equivalently sized portion of the glazing panel provided with the solar coating.

This feature merely expresses that the data transmission through the window is better than compared to the transmission of the data elsewhere through a portion of the glazing panel, the portion being of the same size than that of the window. Such a feature is self-evident, especially when the window is not covered by the solar control coating layer (as is also the case in D1)

Consequently, the subject-matter of claim 8 does not involve an inventive step (see also the reasoning under point 2 which is valid for claim 8 as well).

8. Claim 9:

D1 discloses a method of controlling heat dissipation over at least part of the surface area of an automotive glazing panel. In view of the reasoning under point 2, no inventive step can be attributed to the subject-matter of claim 9.

9. Claim 10:

The feature of claim 1 is regarded as a trivial feature in view of D1.

10. It is not at present apparent which part of the application could serve as a basis for a new, allowable claim. Should the applicant nevertheless regard some particular matter as patentable, an independent claim should be filed taking account of Rule 6.3(b) PCT. The applicant should also indicate in the letter of reply the difference of the subject-matter of the new claim vis-à-vis the state of the art and the significance thereof.

11. In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, the applicant is requested to clearly

identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (see also Rule 66.8(a) PCT).

It is considered appropriate to submit these indications in handwritten form on a copy of the relevant parts of the application as filed.

VII

1. It is not clear what is meant by the general configuration as mentioned in lines 19 - 21 of page 4. The frequent use of the slashes "/" obscures the reading of these lines and it cannot be understood what is meant here.

2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

3. According to the requirements of Rule 11.13(l) reference signs not appearing in the description shall not appear in the drawings, and vice versa. This requirement is not met in view of the reference sign "2" in line 22 of page 4.

VIII

1. It is note clear which "arrangement" is meant in claim 9. No "arrangement" has been defined in the previous claims. However, if the arrangement refers to the glazing panel (it is assumed that this is presently the case) then the claim should mention this accordingly.

2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

PATENT COOPERATION TREA

PCT

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

FARMER, G.
GLAVERBEL
Department of Intellectual Property
Centre R.& D.
Rue de l'Aurora, 2
B-6040 Jumet
BELGIQUE

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Rule 71.1)

Date of mailing *(day/month/year)* 30.08.2001

Applicant's or agent's file reference
WO 4223 PCT — VERTICAR

IMPORTANT NOTIFICATION

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/EP00/04199	01/05/2000	20/05/1999

Applicant
GLAVERBEL

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.

2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.

3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

TAR : WO-PCT : PANDAT
FOR : INT. PREL. EXA. REPORT (PCT/IPEA/416) .

Name and mailing address of the IPEA/

European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized officer

Schuster-Kaechele, W

Tel.+49 89 2399-2281

Form PCT/IPEA/416 (July 1992)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
WO 4223 PCT		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/EP00/04199	01/05/2000	20/05/1999
International Patent Classification (IPC) or national classification and IPC H05B3/86		
Applicant GLAVERBEL		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

   ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations suporting such statement
   - VI ☐ Certain documents cited
   - VII ☒ Certain defects in the international application
   - VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
12/08/2000	30.08.2001
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Gols, J Telephone No. +49 89 2399 2616

Form PCT/IPEA/409 (cover sheet) (January 1994)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/04199

I. Basis of the report

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*:
Description, pages:

1-5	as originally filed

Claims, No.:

1-10	as originally filed

Drawings, sheets:

1/2-2/2	as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

   These elements were available or furnished to this Authority in the following language: , which is:

   - ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
   - ☐ the language of publication of the international application (under Rule 48.3(b)).
   - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

   - ☐ contained in the international application in written form.
   - ☐ filed together with the international application in computer readable form.
   - ☐ furnished subsequently to this Authority in written form.
   - ☐ furnished subsequently to this Authority in computer readable form.
   - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
   - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

   - ☐ the description, pages:
   - ☐ the claims, Nos.:

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-10
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-10
Industrial applicability (IA)	Yes:	Claims	1-10
	No:	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

V

1. Reference is made to the following documents:

   D1: US-A-5 898 407

2. Claim 1:

   D1 discloses an automotive glazing panel having an electrically heatable solar control coating layer (7), spaced first and second bus bars (15) adapted to relay electrical power to the coating layer and a window (8), in which the window is positioned adjacent the top edge of the glazing unit, the first bus bar is positioned adjacent a first edge of the glazing panel and the second bus bar is positioned adjacent a second edge of the glazing panel (see column 7, line 8 - column 9, line 33).

   The subject-matter of claim 1 differs from what has been disclosed in D1 in that the window is a data transmission window.

   This feature relates to the problem of allowing data to be transmitted through a limited area in the glazing panel.

   There is no reason why the window (8) as disclosed in D1 could not be used as a window permitting the transmission of (electromagnetic) data therethrough. The window as disclosed even has dimensions which fall in the range as mentioned in the description of the present application. Consequently the skilled person would have no problem (In fact it is straightforward) to use the window as disclosed in D1 for solving the above-mentioned problem. There exist no special technical difficulties to use the disclosed window as a data transmission window and even if such difficulties would exist, claim 1 does not define any technical features relating to such difficulties.

3. Claim 2:

   The only difference between claim 1 and claim 2 is that the data transmission

window is positioned adjacent a bottom edge of the glazing panel. The selection of such a position is merely guided by circumstances and (see also the reasoning under point 2 above) does not involve an inventive step.

4. Claims 3 and 4:

The subject-matter of this claim is obvious in view of D1 (see the reasoning under points 2 and 3 above). The feature of claim 4 is known from D1.

5. Claims 5 and 6:

The subject-matter of these claim relates to the data transmission window being partially or substantially surrounded by the coating layer. The underlying problem provided by the subject-matter of claim 5 and 6 is that the heatable solar control coating layer should cover the glazing panel over an area as large as possible. Obviously the coating should not be there where the window is situated. Consequently, the subject-matter of claims 5 and 6 is regarded as a trivial measure.

6. Claim 7:

The subject-matter of claim 7 consists in the selection of a minimum distance (at least 300 mm) between the data transmission window and one of the bus bars. Such a selection is not regarded as inventive since it does not presents un-expected effects or properties and the selection is merely chosen in accordance with the circumstances. Hence, no inventive step is present in the subject-matter of claim 7.

7. Claim 8:

The subject-matter of claim 8 defines the glazing panel as defined in claim 1 or claim 2 in more detail. Most of these details relate to features already disclosed in D1. No inventive step, e.g. can be seen in features specifying that the panel has edges or features relating to the length and running of the busbars relative to the edges.

Furthermore no inventive step can be attributed to the feature that the data transmission window is adapted to permit electromagnetic data transmission therethrough, in which the data transmission window permits transmission of a greater proportion of incident electromagnetic data than the proportion of incident electromagnetic data transmitted by an equivalently sized portion of the glazing panel provided with the solar coating.

This feature merely expresses that the data transmission through the window is better than compared to the transmission of the data elsewhere through a portion of the glazing panel, the portion being of the same size than that of the window. Such a feature is self-evident, especially when the window is not covered by the solar control coating layer (as is also the case in D1)

Consequently, the subject-matter of claim 8 does not involve an inventive step (see also the reasoning under point 2 which is valid for claim 8 as well).

8. Claim 9:

D1 discloses a method of controlling heat dissipation over at least part of the surface area of an automotive glazing panel. In view of the reasoning under point 2, no inventive step can be attributed to the subject-matter of claim 9.

9. Claim 10:

The feature of claim 1 is regarded as a trivial feature in view of D1.

VII

1. It is not clear what is meant by the general configuration as mentioned in lines 19 - 21 of page 4. The frequent use of the slashes "/" obscures the reading of these lines and it cannot be understood what is meant here.

2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

3. According to the requirements of Rule 11.13(l) reference signs not appearing in the description shall not appear in the drawings, and vice versa. This requirement is not met in view of the reference sign "2" in line 22 of page 4.

VIII

1. It is note clear which "arrangement" is meant in claim 9. No "arrangement" has been defined in the previous claims. However, if the arrangement refers to the glazing panel (it is assumed that this is presently the case) then the claim should have mentioned this accordingly.

2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
WO 4223 PCT		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/EP00/04199	01/05/2000	20/05/1999
International Patent Classification (IPC) or national classification and IPC H05B3/86		
Applicant GLAVERBEL		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

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   - VIII ☒ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
12/08/2000	30.08.2001
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Gols, J Telephone No. +49 89 2399 2616

Form PCT/IPEA/409 (cover sheet) (January 1994)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/04199

I. Basis of the report

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*:
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Claims, No.:

1-10 as originally filed

Drawings, sheets:

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

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- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
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- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
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- ☐ the description, pages:
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☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

   (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-10
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-10
Industrial applicability (IA)	Yes:	Claims	1-10
	No:	Claims	

2. Citations and explanations
   see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet-

V

1. Reference is made to the following documents:

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2. Claim 1:

   D1 discloses an automotive glazing panel having an electrically heatable solar control coating layer (7), spaced first and second bus bars (15) adapted to relay electrical power to the coating layer and a window (8), in which the window is positioned adjacent the top edge of the glazing unit, the first bus bar is positioned adjacent a first edge of the glazing panel and the second bus bar is positioned adjacent a second edge of the glazing panel (see column 7, line 8 - column 9, line 33).

   The subject-matter of claim 1 differs from what has been disclosed in D1 in that the window is a data transmission window.

   This feature relates to the problem of allowing data to be transmitted through a limited area in the glazing panel.

   There is no reason why the window (8) as disclosed in D1 could not be used as a window permitting the transmission of (electromagnetic) data therethrough. The window as disclosed even has dimensions which fall in the range as mentioned in the description of the present application. Consequently the skilled person would have no problem (In fact it is straightforward) to use the window as disclosed in D1 for solving the above-mentioned problem. There exist no special technical difficulties to use the disclosed window as a data transmission window and even if such difficulties would exist, claim 1 does not define any technical features relating to such difficulties.

3. Claim 2:

   The only difference between claim 1 and claim 2 is that the data transmission

window is positioned adjacent a bottom edge of the glazing panel. The selection of such a position is merely guided by circumstances and (see also the reasoning under point 2 above) does not involve an inventive step.

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The subject-matter of this claim is obvious in view of D1 (see the reasoning under points 2 and 3 above). The feature of claim 4 is known from D1.

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The subject-matter of these claim relates to the data transmission window being partially or substantially surrounded by the coating layer. The underlying problem provided by the subject-matter of claim 5 and 6 is that the heatable solar control coating layer should cover the glazing panel over an area as large as possible. Obviously the coating should not be there where the window is situated. Consequently, the subject-matter of claims 5 and 6 is regarded as a trivial measure.

6. Claim 7:

The subject-matter of claim 7 consists in the selection of a minimum distance (at least 300 mm) between the data transmission window and one of the bus bars. Such a selection is not regarded as inventive since it does not presents un-expected effects or properties and the selection is merely chosen in accordance with the circumstances. Hence, no inventive step is present in the subject-matter of claim 7.

7. Claim 8:

The subject-matter of claim 8 defines the glazing panel as defined in claim 1 or claim 2 in more detail. Most of these details relate to features already disclosed in D1. No inventive step, e.g. can be seen in features specifying that the panel has edges or features relating to the length and running of the busbars relative to the edges.

Furthermore no inventive step can be attributed to the feature that the data transmission window is adapted to permit electromagnetic data transmission therethrough, in which the data transmission window permits transmission of a greater proportion of incident electromagnetic data than the proportion of incident electromagnetic data transmitted by an equivalently sized portion of the glazing panel provided with the solar coating.

This feature merely expresses that the data transmission through the window is better than compared to the transmission of the data elsewhere through a portion of the glazing panel, the portion being of the same size than that of the window. Such a feature is self-evident, especially when the window is not covered by the solar control coating layer (as is also the case in D1)

Consequently, the subject-matter of claim 8 does not involve an inventive step (see also the reasoning under point 2 which is valid for claim 8 as well).

8. Claim 9:

D1 discloses a method of controlling heat dissipation over at least part of the surface area of an automotive glazing panel. In view of the reasoning under point 2, no inventive step can be attributed to the subject-matter of claim 9.

9. Claim 10:

The feature of claim 1 is regarded as a trivial feature in view of D1.

VII

1. It is not clear what is meant by the general configuration as mentioned in lines 19 - 21 of page 4. The frequent use of the slashes "/" obscures the reading of these lines and it cannot be understood what is meant here.

2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

3. According to the requirements of Rule 11.13(l) reference signs not appearing in the description shall not appear in the drawings, and vice versa. This requirement is not met in view of the reference sign "2" in line 22 of page 4.

VIII

1. It is note clear which "arrangement" is meant in claim 9. No "arrangement" has been defined in the previous claims. However, if the arrangement refers to the glazing panel (it is assumed that this is presently the case) then the claim should have mentioned this accordingly.

2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(74) Agents: **FARMER, Guy** et al.; Glaverbel, Intellectual Property Dept., Centre R & D, Rue de l'Aurore, 2, B-6040 Jumet (BE).

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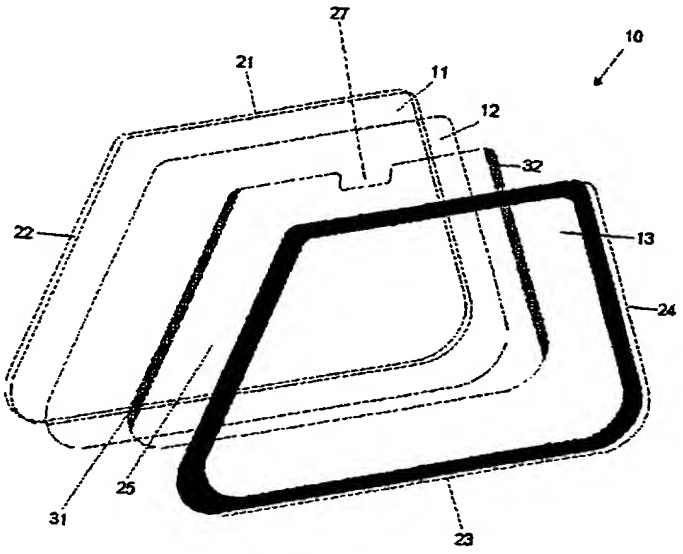
Published:
— *With international search report.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AN AUTOMOTIVE GLAZING PANELWITH SOLAR CONTROL COATING COMPRISING A DATA TRANSMISSION WINDOW



(57) Abstract: An automotive glazing panel has an electrically heatable solar control coating layer, spaced first and second bus bars positioned respectively adjacent a first and a second side edge of the glazing panel and adapted to relay electrical power to the coating layer and a data transmission window positioned adjacent the top edge of the glazing. This arrangement may be used to alleviate or reduce perturbations to heating of the glazing panel caused by the presence of the data transmission window.

WO 00/72634 A1

AN AUTOMOTIVE GLAZING PANELWITH SOLAR CONTROL COATING COMPRISING A DATA TRANSMISSION WINDOW

This invention relates to glazing panels and particularly but not exclusively to vehicle windscreens provided with electrically heatable coating stacks.

Whilst the primary role of a vehicle windscreen is to permit good visibility for a driver, various additional features may be incorporated into its design. Sensors or emitters arranged inside the vehicle may rely on electromagnetic data transmission through the windscreen. For example, passage of an electromagnetic data signal for automatic payment at the toll barriers used on the French motorway system may pass through the windscreen. It is also known to provide a window in the band of black enamel around the periphery of the windscreen , usually along the bottom edge of the windscreen, through which a vehicle identification number or chassis number, often in the form of a bar code, can be read from the outside of the vehicle.

US Patent N° 4,668,270 (Ford Motor Company) describes a car windscreen having an electrically heatable coating layer used for defrosting, de-iceing and/or de-misting. The heatable coating, which is laminated between the two glass sheets of the windscreen, is supplied with electrical power via first and second bus bars which extend respectively along the top and bottom edges of the windscreen, each bus bar being silk screen printed on the glass in a silver ceramic material. The heatable coating is a multilayer coating consisting of layers of zinc oxide and silver formed by magnetron sputtering.

Coating layers are well know not only to provide an electrically heatable element but also to modify the optical properties of the glass, particularly to reduce the proportion of incident solar energy which is transmitted through the glass whilst allowing passage of sufficient visible light to ensure good visibility. This can reduce overheating of the interior of the vehicle in summer and is commonly achieved by reflection of incident solar radiation in the infra-red portion of the spectrum. EP378917A (Nippon Sheet Glass Co.) discloses such coating layers. The term solar control coating layer as used herein refers to a coating layer which increases the selectivity of the glazing panel i.e. the ratio of the proportion of incident visible radiation transmitted through the glazing to the proportion of incident solar energy transmitted through the glazing. Many solar control coating layers have the intrinsic property of being electrically heatable.

When a solar control coating is provided on a windscreen it is advantageous for the solar control coating to cover the entire light transmitting portion of the windscreen so as to reflect as much of the incident solar energy as

possible. A data transmission window in the form of a gap or hole may be provided in a solar reflecting coating layer specifically to allow the passage of electromagnetic waves through that portion of the glazing, for example to a sensor or emitter. One example of this, as referred to above, is to allow passage of an electromagnetic data signal for automatic payment at the toll barriers used on the French motorway system. The principle is nevertheless applicable to allowing passage of any electromagnetic data transmission signal through a glazing panel, particularly using infra-red wavelengths. The term data transmission window as used herein refers to a portion of the surface area of a glazing adapted to permit electromagnetic data transmission therethrough.

According to one aspect, the present invention provides a glazing panel as defined in Claim 1.

According to another aspect, the present invention provides a glazing panel as defined in Claim 2.

The invention allows a heatable solar control coating layer to be combined with a data transmission window in a particularly advantageous way.

The data transmission window may be substantially a four-sided polygon. Preferably, the data transmission window is not electrically coupled to an electrical element.

In one form, the data transmission window may have at least three sides surrounded by the solar control coating layer.

For aesthetic reasons and so as not to impair the driver's vision the bus bars of a heatable coating layer of a car windscreen are usually arranged out of view. It has been common practice for bus bars to be arranged along the top and bottom edges (i.e. the longer two edges of a car windscreen) hidden from the inside of the car by the dashboard and the interior bodywork and hidden from the outside by a band of black enamel (which may have the additional role of blocking solar radiation to prevent deterioration of underlying glue securing the windscreen to the car bodywork). This arrangement has been used to provide a suitable distance and thus an appropriate electrical resistance between the bus bars so as to allow a suitable electrical power to be dissipated in the coating layer to provide the desired heating effect.

Data transmission windows in solar energy reflecting windscreens have generally been arranged towards the top edge of the windscreen, roughly centrally between the two side edges. This may facilitate orientation and positioning of data transmitting and/or receiving instruments.

The inventors have appreciated that simply combining these two known techniques is undesirable as positioning of the data transmission window in close proximity to the upper bus bar results in a significant gap or non-conducting portion adjacent to the bus bar and increased risk of provoking uneven heating and undesirable hot spots in the coating layer.

This problem may be resolved by the invention without requiring repositioning of the data transmission window or fundamental redesigning of either this or the bus bars.

The combination of the data transmission window with the bus bars arranged along the side edges of the windscreen may significantly reduce the perturbation to the flow of electrical current in the coating layer caused by the presence of the data transmission window.

In prior art arrangements having a substantially horizontal bus bar arranged along the top edge of a windscreen, this bus bar must either be connected to an electrical supply by a connector at the top edge of the windscreen or the bus bar must be brought down one side of the windscreen (avoiding contact with the electrically conducting coating layer) so as to allow arrangement of an electrical connector at the bottom edge of the windscreen. Arranging the bus bars adjacent to the side edges of the glazing may help to avoid this problem by allowing for connection at or adjacent to the bottom edge of the windscreen.

Arrangement of the data transmission window in an elongate form may facilitate positioning of data transmitting and/or receiving instruments and passage of data signals. Arranging the elongation along the top or bottom edge of the glazing panel in combination with the defined bus bar arrangement enables a desired surface area for the data transmission window to be selected whilst reducing the width of the interruption in the coating layer between the two bus bars. This may be used to minimise the perturbation of current flow in the coating layer when electrically heated.

The data transmission window preferably has a width comprised between 50 mm and 100 mm, and a length comprised between 80 mm and 210 mm.

The data transmission window may have a width of at least 50 mm, 60 mm, 70 mm, 80 mm, 90 mm or 100 mm. It may have a width of less than 300 mm, 250 mm, 200 mm, 150 mm or 100 mm.

The data transmission window may have a length of at least 80 mm, 100 mm, 120 mm, 140 mm, 160 mm, 180 mm or 210 mm. It may have a length of less than 400 mm, 350 mm, 300 mm, 250 mm or 210 mm.

According to another aspect, the present invention provides a glazing panel as defined in Claim 8.

According to a further aspect, the present invention provides a method of controlling heat dissipation over at least part of the surface area of an automotive glazing panel as defined in Claim 9.

An embodiment of the invention will now be described, by way of example only, with reference to Fig 1 and Fig 2, both of which are expanded schematic views of a car windscreen.

Windscreen 10 illustrated in Fig 1 comprises an inner sheet of glass 11 laminated to an outer sheet of glass 13 by means of a sheet of pvb 12.

The windscreen is substantially trapezial in shape having a top edge 21, a longer bottom edge 23 substantially parallel thereto and side edges 22, 24. The windscreen has a spherical, curved configuration so that it is curved both along an axis parallel to the top edge 21 and along an axis perpendicular to the top edge 21 (for ease of representation the curvature of the windscreen is not shown).

An electrically conducting solar control layer 25 is positioned between the inner and outer sheets of glass 11,13. Typically this is a multi-layer coating having the general configuration antireflective dielectric layer/ silver containing layer/ antireflective dielectric layer/ silver containing layer/ antireflective dielectric layer deposited by sputtering. The coating layer may be carried for example on the inner face of the outer sheet of glass 13 (i.e. face 2) or on a supporting film, for example of PET.

The coating layer 25 is spaced from the external periphery of the windscreen by a non-conducting peripheral band (not shown) provided in this example by a band in which the coating layer has either not been deposited or has been removed. This prevents the electrically conductive coating extending to the very edge of the windscreen and may also reduce the risk of corrosion of the coating layer.

A data transmission window 27 is provided as part of the glazing panel within the coating layer. In the example of Fig 1, the data transmission window 27 is partially surrounded by the coating layer 25 but in other embodiments it may be entirely surrounded. The data transmission window may be formed by removing a portion of the coating layer or by masking when the coating layer is deposited.

Electrical power is supplied to the coating layer via a first bus bar 31 arranged in contact with the coating layer 25 adjacent to the first side edge 22 of the windscreen and a second bus bar 32 arranged in contact with the coating layer 25

adjacent to the second side edge 23 of the windscreen. The bus bars may be formed in any suitable manner, for example by silk screen printing of a conducting enamel material underneath or on top of the coating layer or by means of conducting tape or conductive strips, for example conductive copper or tinned copper strips. Connectors (not shown) for facilitating connection of the bus bars to a car's electrical circuit may protrude from the glazing and may be arranged adjacent to each other (not shown).

In Fig 2, the data transmission window 27 is entirely surrounded by the coating layer 25.

Each of these arrangements may be used to allow the coating layer to cover at least the majority of the light transmitting surface of the windscreen without provoking significant perturbation in the heating arrangement of the coating layer.

Whilst the invention has been particularly described in relation to a windscreen it will be understood that it is applicable to other automotive glazing panels, for example, side windows, rear windows and sunroofs.

Claims

1. An automotive glazing panel having an electrically heatable solar control coating layer, spaced first and second bus bars adapted to relay electrical power to the coating layer and a data transmission window, in which the data transmission window is positioned adjacent the top edge of the glazing panel, the first bus bar is positioned adjacent a first side edge of the glazing panel and the second bus bar is positioned adjacent a second side edge of the glazing panel.

2. An automotive glazing panel having an electrically heatable solar control coating layer, spaced first and second bus bars adapted to relay electrical power to the coating layer and a data transmission window, in which the data transmission window is positioned adjacent the bottom edge of the glazing panel, the first bus bar is positioned adjacent a first side edge of the glazing panel and the second bus bar is positioned adjacent a second side edge of the glazing panel.

3. An automotive glazing panel in accordance with claim 1 or claim 2, in which the data transmission window is substantially elongate in shape with its elongation stretching substantially parallel to the top and/or bottom edge of the glazing panel.

4. An automotive glazing panel in accordance with any preceding claim in which the glazing panel is an automotive windscreen.

5. An automotive glazing panel in accordance with any preceding claim in which the data transmission window is at least partially surrounded by the coating layer.

6. An automotive glazing panel in accordance with any preceding claim in which the data transmission window is substantially surrounded by the coating layer.

7. An automotive glazing panel in accordance with any preceding claim in which the minimum distance between the periphery of the data transmission window and either of the first or second bus bars is at least 300 mm.

8. A glazing panel
in which the glazing panel perimeter comprises at least a top edge, a bottom edge and first and second side edges, the bottom edge being longer than the top edge and substantially parallel thereto and each of the side edges being substantially the same length as each other and shorter than the top edge,
in which the glazing panel is provided with an electrically heatable solar control coating layer over at least part of its surface area,
in which the glazing panel is provided with a data transmission window adapted to permit electromagnetic data transmission therethrough,
in which the data transmission window permits transmission of a greater proportion of incident electromagnetic data than the proportion of incident electromagnetic data transmitted by an equivalently sized portion of the glazing panel provided with the solar control coating,
in which the data transmission window is at least in part surrounded by the coating layer and is positioned adjacent to either the top edge or the bottom edge of the glazing panel,
in which the first bus bar is arranged substantially adjacent to and extends substantially along the first side edge of the glazing panel
and in which the second bus bar is arranged substantially adjacent to and extends substantially along the second side edge of the glazing panel.

9. A method of controlling heat dissipation over at least part of the surface area of an automotive glazing panel comprising use of an arrangement in accordance with any preceding claim.

10. A method in accordance with Claim 9, in which heat dissipation is controlled to be substantially even over the majority of the surface area of the glazing panel.

Fig 1

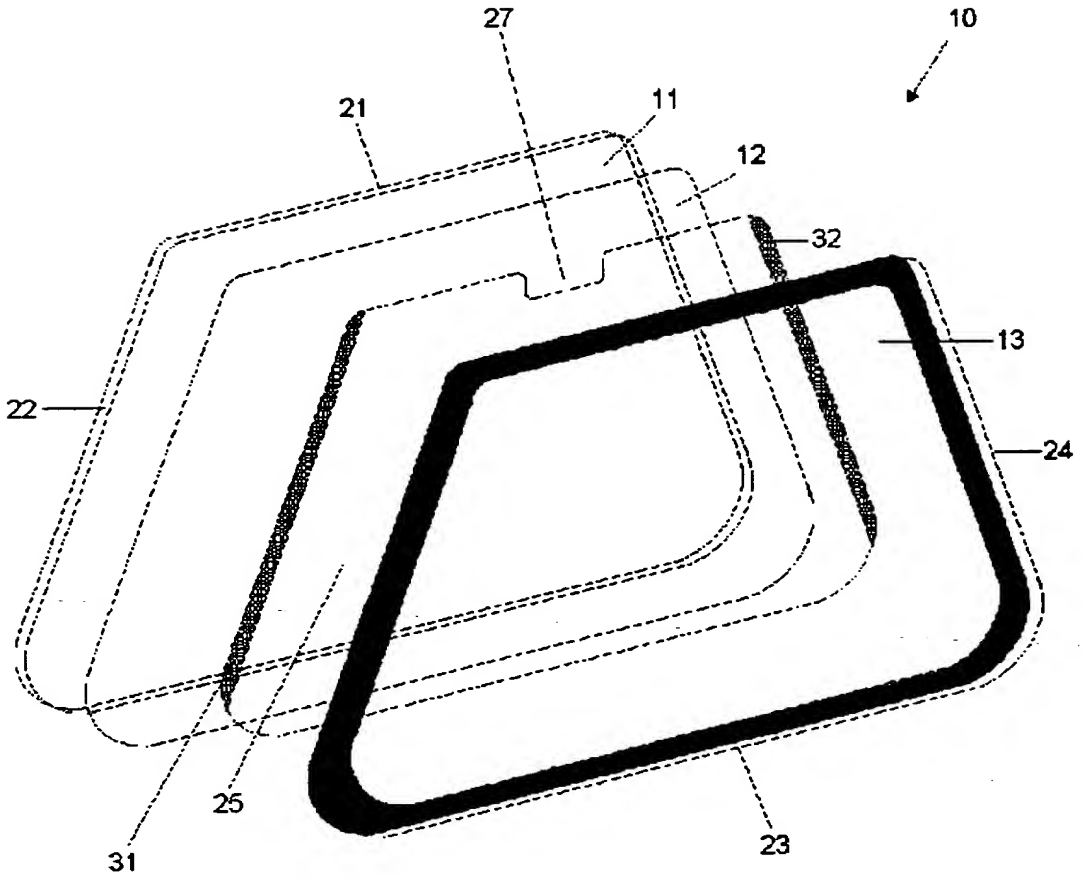
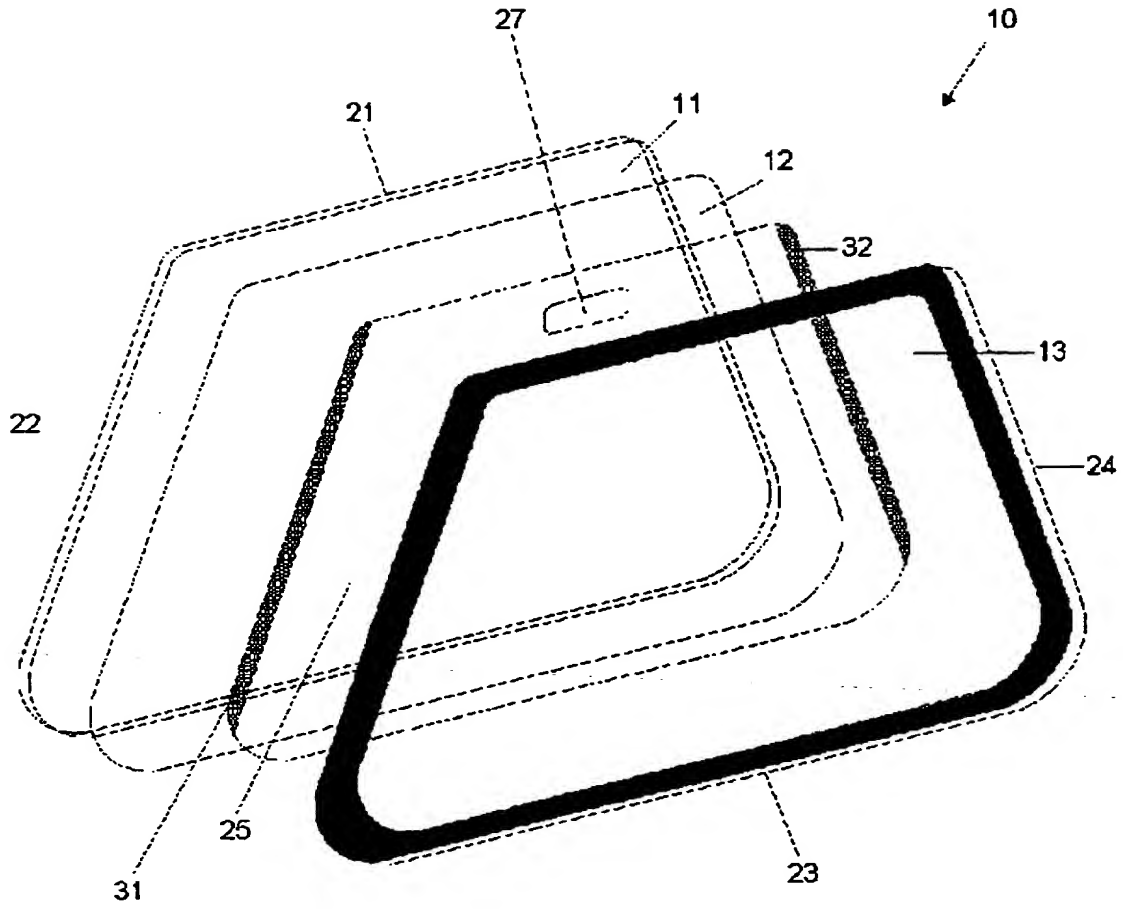


Fig 2



INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 00/04199

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H05B3/86 H01Q1/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H05B H01Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
WPI Data, PAJ, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 012 255 A (BECKER) 30 April 1991 (1991-04-30) the whole document	1,2,8
A	DE 195 13 263 A (LINDENMEIER) 10 October 1996 (1996-10-10) the whole document	1,2,8
A	US 5 898 407 A (PAULUS) 27 April 1999 (1999-04-27) the whole document	1,2,8
A	EP 0 726 232 A (SAINT-GOBAIN) 14 August 1996 (1996-08-14) the whole document	1,2,8

-/--

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
7 September 2000	13/09/2000

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Taccoen, J-F

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 378 917 A (NIPPON SHEET GLASS) 25 July 1990 (1990-07-25) cited in the application	
A	US 4 668 270 A (RAMUS) 26 May 1987 (1987-05-26) cited in the application	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/EP 00/04199

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5012255 A	30-04-1991	DE 3808401 A	21-09-1989
		DE 58904538 D	08-07-1993
		EP 0332898 A	20-09-1989
		ES 2043914 T	01-01-1994
DE 19513263 A	10-10-1996	WO 9631918 A	10-10-1996
		EP 0764350 A	26-03-1997
US 5898407 A	27-04-1999	DE 19532431 A	06-03-1997
		AT 193619 T	15-06-2000
		DE 59605349 D	06-07-2000
		EP 0760537 A	05-03-1997
		JP 9175166 A	08-07-1997
EP 0726232 A	14-08-1996	DE 19503892 C	24-10-1996
		DE 69601819 D	29-04-1999
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		EP 0263582 A	13-04-1988

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	**FOR FURTHER ACTION** see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
WO 4223 PCT		
International application No.	International filing date *(day/month/year)*	(Earliest) Priority Date *(day/month/year)*
PCT/EP 00/ 04199	01/05/2000	20/05/1999
Applicant		
GLAVERBEL		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

[X] It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

   a. With regard to the **language,** the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   [ ] the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

   b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

   [ ] contained in the international application in written form.

   [ ] filed together with the international application in computer readable form.

   [ ] furnished subsequently to this Authority in written form.

   [ ] furnished subsequently to this Authority in computer readble form.

   [ ] the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

   [ ] the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. [ ] **Certain claims were found unsearchable** (See Box I).

3. [ ] **Unity of invention is lacking** (see Box II).

4. With regard to the **title,**

   [ ] the text is approved as submitted by the applicant.

   [X] the text has been established by this Authority to read as follows:

   AN AUTOMOTIVE GLAZING PANELWITH SOLAR CONTROL COATING COMPRISING A DATA TRANSMI SSION WINDOW

5. With regard to the **abstract,**

   [X] the text is approved as submitted by the applicant.

   [ ] the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 1

   [ ] as suggested by the applicant.

   [X] because the applicant failed to suggest a figure.

   [ ] because this figure better characterizes the invention.

   [ ] None of the figures.

INTERNATIONAL SEARCH REPORT

National Application No
PCT/EP 00/04199

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H05B3/86 H01Q1/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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	-/--	

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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
7 September 2000	13/09/2000

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Taccoen, J-F

1

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
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A	US 4 668 270 A (RAMUS) 26 May 1987 (1987-05-26) cited in the application	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/EP 00/04199

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		DE 58904538 D	08-07-1993
		EP 0332898 A	20-09-1989
		ES 2043914 T	01-01-1994
DE 19513263 A	10-10-1996	WO 9631918 A	10-10-1996
		EP 0764350 A	26-03-1997
US 5898407 A	27-04-1999	DE 19532431 A	06-03-1997
		AT 193619 T	15-06-2000
		DE 59605349 D	06-07-2000
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EO/US
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PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing: 30 November 2000 (30.11.00)	
International application No.: PCT/EP00/04199	Applicant's or agent's file reference: WO 4223 PCT
International filing date: 01 May 2000 (01.05.00)	Priority date: 20 May 1999 (20.05.99)
Applicant: DEGAND, Etienne et al	

1. The designated Office is hereby notified of its election made:

[X] in the demand filed with the International preliminary Examining Authority on:

12 August 2000 (12.08.00)

[ ] in a notice effecting later election filed with the International Bureau on:

2. The election [X] was

[ ] was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer: J. Zahra
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

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